

The News From Native Plant School

July 2015



Native Plant School is a partnership between Shaw Nature Reserve, The Missouri Department of Conservation, and Wild Ones Natural Landscapers. Classes are held in the Whitmire Wildflower Garden at Shaw Nature Reserve.



Please register at shawnature.org/NPS



Upcoming classes:

Thursday, September 10, 1-4 p.m.
If You Plant It, They Will Come – Gardening for Pollinators
by Susie Van de Riet

Friday, September 11, 4-7:30p.m.
Shaw Wildflower Market

Thursday, October 8, 1-4 p.m.
Gardening with Asters and Goldenrods

Saturday, October 17, 1-5 p.m.
Celebrating 10 Years of Greener Gardens: Native Plant School's 10th Anniversary!

Thursday, November 12, 1-4 p.m.
Growing Native Trees and Shrubs from Acorns, Nuts and Berries

Please register at shawnature.org/NPS

“The hum of bees is the voice of the garden.”

~Elizabeth Lawrence

Nature Connection: Buzz Pollination



Buzz pollination (sonication) occurs when a bee, (usually a bumble bee, mining bee, leafcutter bee, or sweat bee,) cling to a flower and vibrate their flight muscles so fast they create a resonant vibration that we can hear as a low pitched buzzing noise. The vibration will cause more pollen to be released from the anther making pollination more efficient. After a bee buzz pollinates a flower it will often fly to a nearby flat surface to brush the pollen from its abdomen into its pollen baskets on its legs.

Some plants to look for in July to observe buzz pollination are *Polansia dodecandra* Redwhisker, *Rhexia mariana* Meadow Beauty, *Senna marilandica* Wild Senna, *Chamaecrista fasciculata* Partridge Pea, *Oenothera biennis* Common Evening-Primrose, and *Hypericum spathulatum* Shrubby St. John's-Wort.

Celebrating 10 years of Greener Gardens:

You are invited!

Celebrating 10 Years of Greener Gardens: Native Plant School's 10th Anniversary!

Keynote speaker Alan Branham (director of horticulture at Powell Gardens) will be introducing his new book *Native Plants of the Midwest*. (Timber Press).

Saturday, October 17, 1-5 p.m.
Free to the Public
RSVP at besa.schweitzer@mobot.org

10th Anniversary Schedule:

1-3 p.m.

Tour the Whitmire Wildflower Garden and visit exhibits.

3 p.m.

Social, music, light food and refreshments.

4 p.m.

Keynote Address: ALAN BRANHAGEN.

Special thanks to Wild Ones St. Louis for Sponsoring this 10th Anniversary Celebration!

Exhibitors Include:

Wild Ones St. Louis, Shaw Nature Reserve, MO Master Naturalists, Audubon's Bring Conservation Home, Grow Native!, Bush Honeysuckle Tables with Dale Dufer, Perennial, and Wild Bird Rehabilitation, pottery and throwing techniques, Edg-Clif Vineyard, and Sustainable Urban Farming with Native Plants.

Free willow seedlings (prairie, sandbar and diamond) to the first 100 attendees. Tallamy says there are 456 caterpillars on willow!!

Stormwater for Professionals:

A Wednesday, July 15th event "Greener Solutions to Municipal Landscape Design" including a Tour of Kirkwood Park and Walker Lake followed by a Panel Discussion on developing greener stormwater projects!

Registration at <https://shawseries715.eventbrite.com/>

St. Louis Native Plant Garden Tour:

I hope you were one of the lucky 200+ participants who made it to the Native Plant Garden tour last weekend. The tour was a great success!

Participants were happy to learn more about native plants and the functions they serve.

If you missed it you will get another chance next year. We can all feel proud to be part of the expanding native plant movement.



Plants for the Pond Edge:

The pond edge can be a beautiful place for biodiversity or a maintenance headache. To promote beauty and function at your pond edge use native plants. Planting the edge with beautiful flowers and sedges will provide an important buffer area to prevent erosion of the edge from wave action and stormwater runoff. Also, having larger vegetation has the added benefit of discouraging geese. Here is a list of recommended native plants for the pond edge.

Forbs

Chelone obliqua	Rose turtlehead
Eupatorium perfoliatum	Common boneset
E. purpureum	Joe-pye
E. coelestinum	Mistflower
Filipendula rubra	Queen-of-the prairie
Helenium autumnale	Helen's flower
Hibiscus lasiocarpus	Rose mallow
Iris virginica	S. blueflag iris
Mimulus ringens	Monkeyflower
Phlox paniculata	Meadow phlox
Pontederia cordata	Pickerelweed
Pycnanthemum virginicum	Mountain mint
Sagittaria latifolia	Arrowleaf

Grasses/Sedges/Rushes

Carex shortiana	Shorts sedge
C. annectans	Yellow fox sedge
C. squarossa	Squarrose sedge
C. muskingumensis	Palm sedge
C. pellita	Wooly sedge
C. emoryii	Riverbank sedge
Chasmanthium latifolium	River oats (shade)
Juncus effusus	Soft rush
Scirpus atrovirens	Green bulrush
S. cyperinus	Wool grass
Spartina pectinata	Cord grass (aggressive-good for large areas)

Gardening Tips:

- Expect some leaf fall, a normal reaction to summer drought, especially on red buckeye.
- Continue watering young plantings.
- Trim back any groundcover overhanging curbs or sidewalks.
- Prune back or limb up low hanging or arching branches that block sidewalks and driveways.
- Remove diseased plant material (like deformed purple coneflower, blazing star, and black-eyed Susan) by digging entire plant and disposing in trash. Composting will spread the virus.



Our garden was certified at the platinum level by Bring Conservation Home! We are proudly displaying our sign on one of our new stump planters down by the home landscaping shelter. Stop by and see for yourself how our garden incorporates landscaping with environmentally healthy and sustainable native plant species, the removal of invasive plant species, water conservation, and other stewardship practices that promote healthy habitat for birds, native wildlife and people. You can get your garden certified too at www.stlouisaudubon.org/conservation/BCH/

"We have inherited the responsibility and consequences of managing the land from the Native Americans displaced by our ancestors. Our cultural practices will determine, for better or worse, the extent to which future generations will have healthy, diverse, resilient ecological systems to sustain their quality of life. Our legacy should be to ensure that at a landscape level we retain sufficient integrity, diversity, and functionality to make this possible."

Doug Ladd is Director of Conservation Science, The Nature Conservancy, Missouri Chapter

Seen in the Garden:



Horticulturalist, Terri Brandt, shows a group of Master Gardeners from Tennessee the principles of gardening with native plants.



Prickly pear cactus (*Opuntia humifusa*)

Horticulturalist, Scott Woodbury, teaches native plant school participants how to garden with deer.

Caterpillar Camouflage:

The greyheaded coneflower (*Ratibida pinnata*) blooms late June through early September and can attract many beautiful and some strange looking insects. The camouflaged looper (*Synchlora aerata*) is sort of the decorator crab of the caterpillar world. The camouflaged looper feeds on the flower heads of many plants in the Aster family. As it works its way across the flower it attaches pieces of its food to its back. This camouflage technique causes the caterpillar to wear yellow petals when it is on the yellow coneflower and then become covered in purple petals when it moves on to a purple coneflower. You can also find these caterpillars on blazing star, coneflowers and other members of the aster family. If you have kids you can transfer the caterpillar from one colored flower to the next to have a very pretty insect friend. This caterpillar becomes the wavy lined emerald moth which is a pretty green moth with wavy white lines across the wing.



This caterpillar is visiting sweet coneflower, *rudbeckia subtomentosa*, where it attaches pieces of its food to its back, in this case dark-purple anthers, to blend in with center of the flower.

Monarchs & Milkweeds:

By James Trager

The biggest problem for Monarchs in the modern world is ever-shrinking and more fragmented occurrence of milkweed-containing habitats. Ironically, the common milkweed *Asclepias syriaca*, a species that benefits from some soil disturbance and is the dominant food source for larval Monarch, over most of the last two centuries benefitted from human land use, including agriculture. Pastures (before current “pasture improvement – read this as, elimination of “weeds” -- practices), and crop fields (in between the crop rows) and their unplowed margins were the primary habitat of common milkweed in the post-settlement “Corn Belt”, and these were also known to be the primary breeding ground of eastern Monarchs in modern times. But recent increases in herbicide use to create ever “cleaner” pasture and (weed-free) crop fields, along with fenceline-to-fenceline plowing, and continued expansion of cropland into ever more land area have led to measurable, huge losses of this Monarch habitat in the last two decades.

“Study nature, love nature, stay close to nature. It will never fail you.”
~Frank Lloyd Wright

An archive of this newsletter is available at: <http://www.missouribotanicalgarden.org/visit/family-of-attractions/shaw-nature-reserve/gardens-gardening-at-shaw-nature-reserve/native-landscaping-for-the-home-gardener-native-plant-school/the-news-from-native-plant-school.aspx>

Which Milkweed Should I Plant?

By Scott Woodbury

For the most part, each milkweed species has its own horticultural/environmental requirements with a couple exceptions... common and marsh milkweeds tend to be more generalist in nature and can grow well in a variety of soil types including clay. They tend to spread easily in most gardens. Here is a species by species breakdown of milkweed species that are available commercially in Missouri.



Common milkweed *Asclepias syriaca* needs elbow-room as it is an aggressive suckering perennial growing 3-4 feet tall. Its flowering stems are often widely spaced. It normally grows in tallgrass prairies, along roadsides and at the edges of corn and soy fields. It is at the center of the current controversy with roundup-ready corn and soybeans. James Trager states that this species is the most preferred milkweed by monarchs laying eggs. It's fragrant flowers also attract a wide variety of pollinators and predators looking to ambush pollinators. Performs best in full sun but may tolerate partial shade.

Marsh or Swamp Milkweed *Asclepias incarnata* is a clump-forming perennial growing 3-4 feet tall. It is a wetland species and so can tolerate poorly drained clay soils with low oxygen and flooding. It is an ideal rain garden plant. It's copious display of flower clusters attract a wide variety of pollinators and predators looking to ambush pollinators. Monarchs frequently lay their eggs on this species. In dry soils expect it to be short-lived. Performs best in full sun and moist soils.

Butterfly milkweed *Asclepias tuberosa* is a clump-forming perennial growing 2 feet tall. It grows in dry prairies, roadsides and gardens with well-drained soils. Many gardeners report having poor success growing this species. It is also one of the top butterfly and pollinator attractors and is the number one choice of milkweeds by gardeners. Performs best in full sun and dry soils.

Purple Milkweed *Asclepias purpurascens* is a clump-forming woodland perennial growing 3 feet tall. It grows in open woodlands and occasionally prairie and glade edges. It is also sought-after by gardeners for its fragrant purple flower clusters. It is also one of the top butterfly and pollinator attractors. Performs best in light shade and dry to average soils.

Spider Milkweed *Asclepias viridis* is a clump-forming perennial growing 1-2 feet tall. It grows in dry prairies and roadsides. It has the largest flowers of Missouri-native species with greenish-yellow flowers and purple speckling. This is a lesser-known species among gardeners but well-worth considering. Performs best in full sun and dry or rocky soils.

Whorled Milkweed *Asclepias verticillata* is an aggressive suckering perennial 1-2 feet tall in full sun. It colonizes rapidly...less so in part shade. Its flowering stems emerge densely from the ground, hence the other common name, horsetail milkweed. Its stems are upright with narrow leaves and tiny greenish-white fragrant flowers in clusters along the stem. This plant is often considered aggressive by gardeners but is difficult to find in local nurseries. Performs best in full sun to part shade and dry to average soils.

Sullivant's Milkweed *Asclepias sullivantii* is a suckering perennial growing 3-4 feet tall. Its flowering stems are widely spaced, appearing by surprise 5-10 feet away from parent plants. It grows in wet prairies. Its appearance is similar to common milkweed but it's not as aggressive. Flowers are pink with salmon-orange tones. Leaf mid-veins are pinkish in color. Performs best in full sun in wet to average soils.

I hope these descriptions help you decide which species will do best on your site.